

Claims

1. A method of printing information on a medium, comprising the steps of:

accepting data representing a first information;

accepting data representing a second information, said second information adding

5 informational value over said first information;

depositing marks of a first color in accordance with said first data; and

depositing marks of at least a second color in accordance with said second data, such
that said first information and said second information are printed on the medium and are
detectable from the printed medium as separate first information and second information.

10

2. A method of printing information in accordance with the method of claim 1

wherein said steps of depositing marks of a first color and depositing marks of at least a
second color further comprises the steps of:

depositing marks of said first color to accommodate said marks of said second color;

15 and

depositing marks of said second color to accommodate said marks of said first color.

3. A method in accordance with the method of claim 2 wherein said step of

depositing marks of said at least a second color to accommodate said marks of said first color

20 further comprises the step of depositing marks of said at least a second color on the medium

at locations where marks of said first color are absent.

4. A method in accordance with the method of claim 1 wherein said step of depositing marks of at least a second color further comprises the step of depositing marks of a third color in coordination with said second color marks to produce a superpixel.

5 5. A method in accordance with the method of claim 1 wherein said step of depositing marks of at least a second color further comprises the step of depositing marks of a second color perceptible to a human and said step of depositing marks of a first color further comprises the step of depositing marks of a first color imperceptible to a human.

10 6. A method in accordance with the method of claim 1 wherein said step of depositing marks of a first color further comprises the step of ejecting drops of a first color ink and wherein said step of depositing marks of at least a second color further comprises the step of ejecting drops of a second color ink.

15 7. A printed medium having information recorded thereon in accordance with the method of claim 1.

8. A method of printing information on a medium, comprising the steps of:
accepting data representing a first information;
20 accepting data representing a second information, said second information adding informational value independent of said first information; and
depositing marks of at least two colors in accordance with said first information data and said second information data such that said first information and said second information are separately detectable from the medium, said first information data determining where a

mark is to be deposited on the medium and said second information data determining a color of said at least two colors of marks to be deposited.

9. A method in accordance with the method of claim 8 wherein said step of
5 depositing marks of at least two colors further comprises the step of depositing said marks of at least two colors in coordination to produce a superpixel.

10. A method in accordance with the method of claim 8 wherein said step of
10 depositing marks of at least two colors further comprises the steps of ejecting drops of a first color ink and ejecting drops of a second color ink.

11. A printed medium having information recorded thereon in accordance with the method of claim 8.

12. A hardcopy output having information thereon printed by a color printing
15 apparatus, comprising:

a medium having a surface;

marks of a first color deposited on said surface and arranged in a pattern to convey a first information; and

20 marks of at least second and third colors deposited on said surface in locations where said marks of said first color are absent and conveying a second information by a sequence of said second and third color marks.

13. A hardcopy output in accordance with claim 12 wherein said marks of at least second and third colors further comprises a superpixel coordination of said marks of at least second and third colors.

5 14. A hardcopy output in accordance with claim 12 wherein said marks of a first color further comprises dots of a first color ink and wherein said marks of a second color further comprises dots of a second color ink.

10 15. A hardcopy output in accordance with claim 12 wherein said marks of a first color further comprises superpixels of a first color and wherein said marks of a second color further comprises superpixels of a second color.

15 16. A hardcopy output in accordance with claim 12 wherein said second color is perceptible to a human and said third color is imperceptible to a human.

17. A hardcopy output having information thereon printed by a color printing apparatus, comprising:

a medium having a surface;

20 marks of at least first and second colors deposited on said surface, arranged in a pattern to convey a first information, and arranged in a sequence of said at least first and second colors within at least a portion of said pattern to convey a second information.

18. A hardcopy output in accordance with claim 17 wherein said marks of at least second and third colors further comprises a superpixel coordination of said marks of at least second and third colors.

5 19 A hardcopy output in accordance with claim 17 wherein said marks of a first color further comprises dots of a first color ink and wherein said marks of a second color further comprises dots of a second color ink.

10 20. A hardcopy output in accordance with claim 17 wherein said marks of a first color further comprises superpixels of a first color and wherein said marks of a second color further comprises superpixels of a second color.

21. A printing apparatus placing marks on a medium, comprising:
a first input that accepts first data representing a first information;
15 a second input that accepts second data representing a second information, said second information adding informational value independent of said first information;

a first color marking element that deposits marks of a first color in accordance with said first data; and

a second color marking element that deposits marks of at least a second color in
20 accordance with said second data such that said first information and said second information are printed on the medium and are detectable from the printed medium as separate first information and second information.

22. A printing apparatus in accordance with claim 21 wherein said first color marking element further comprises an ink ejector that ejects drops of a first color ink and wherein said second color marking element further comprises an ink ejector that ejects drops of a second color ink.